

State of Alaska FY2008 Governor's Operating Budget

Department of Transportation/Public Facilities Marine Engineering Component Budget Summary

Component: Marine Engineering

Contribution to Department's Mission

Ensure that all Alaska Marine Highway System (AMHS) vessels and terminal facilities are safe, reliable, comfortable, and accessible to all Alaskans and visitors to the state.

Core Services

Conduct annual Fleet and Terminal condition surveys to develop functional operational assessments. Provide technical information for long-range planning and facility development.

Prepare the plans, specifications and estimates and manage the construction contracts for new vessel construction and for the repair, refurbishment, and modernization of existing AMHS vessels. Assure that the vessels continue to comply with state, federal, and international regulations, as well as all United States Coast Guard (USCG) and marine classification society requirements.

Support fleet operations through the port engineer functions located in Ketchikan while attending AMHS vessels at commercial shipyards during both state overhauls and federal aid projects.

Perform preventive maintenance on 16 widely-dispersed state-owned ferry terminals ranging in location from Homer to Ketchikan. Perform semi-annual inspections and maintenance for regulatory compliance and accomplish upgrades and repairs of the terminal facilities. Terminal facilities include the transfer bridges, mooring structures, staging areas and terminal buildings. The majority of these terminals are located on the National Highway System and are vital for the transportation of goods and people throughout the state.

FY2008 Resources Allocated to Achieve Results

FY2008 Component Budget: \$2,718,600

Personnel:

| | |
|--------------|-----------|
| Full time | 16 |
| Part time | 2 |
| Total | 18 |

Key Component Challenges

The contract administration of the existing fleet refurbishment program funded through current ongoing capital improvement projects continues to stretch existing vessel construction management team members. We continue to modernize our existing fleet, three of which carry the very demanding Safety of Life at Sea (SOLAS) certification required to service Prince Rupert, BC. On July 1, 2002 requirements for fire protection, fire detection and fire extinction on board ships went into effect as part of the International Convention for the Safety of Life at Sea 1974 incorporating technological advances in fire detection and extinction as well as lessons learned from fire incidents over the years.

Availability of adequate Statewide Transportation Improvement Program (STIP) funds to procure replacement vessels for our aging fleet, as well as modernize and maintain our vessels, is critical to the long range mission of AMHS. The orderly replacement and upgrade of our vessels, with more emphasis on true day boat service, should result in reduced operating expense and improved vessel reliability and customer service. In accordance with our long-range maintenance and modernization plan, the planning for federally funded capital projects for M/V Aurora, M/V Columbia and M/V Lituya are underway for completion in FY08.

With the addition of modernized and expanded terminal facilities and the introduction of new Fast Vehicle Ferry (FVF) terminals and maintenance facilities, our workload has increased for the four-person shore facilities maintenance team. New facilities include a stern berth in Auke Bay, terminals in Whittier and Valdez, a dock and FVF support facility in Cordova, and a berth in Ketchikan. This year also saw the addition of a new facility in Coffman Cove and additions to the Wrangell ferry terminal. Regulatory requirements now mandate that AMHS facilities have sophisticated security features. The Valdez terminal incorporates AMHS' first-ever weigh-in-motion vehicle scales installed to support the M/V Chenega in Prince William Sound. These scales will require maintenance and calibration. All emergency generator fuel storage tanks now require operation inspections and certification to meet 18 AAC 78. Each new terminal that is built, upgraded, or expanded adds a new fire alarm system and/or sprinkler system that requires annual re-certification to meet Division of Fire Prevention regulations. These new regulations, added to historical Occupational Safety and Health Administration (OSHA), Department of Environmental Conservation (DEC), Americans with Disabilities Act (ADA), and now security requirement oversight, require significant administrative effort and put pressure on the existing budget.

Recruitment of Vessel Construction Managers and Port Engineers, primarily due to retirement and transfer from state service, will continue to be challenging. Hiring qualified candidates that have specialized skills and experience normally requires nationwide recruitment and at least six months lead time.

In order to sail to Prince Rupert, B.C. AMHS vessels must continue to be certified under the International Maritime Organization's demanding Safety of Life at Sea (SOLAS) regulations. Over the past 15 years, new SOLAS safety and security requirements have been added almost annually, usually with very short implementation timeframes. Many of these requirements are eventually incorporated in the USCG-enforced U.S. Code of Federal Regulations (CFR's) for the remainder of the AMHS domestic fleet.

The American with Disabilities Act (ADA) has established new regulations that will be enforced by the Department of Justice that apply to all vessel renovation and new construction projects. These new regulations apply to many of the shore-side ADA requirements that exist in building codes today. Due to the age and configurations of our vessels, these new requirements will add challenges and cost to the design and construction of our projects.

Established Alaska Department of Environmental Conservation regulations pertaining to black (sewage) and grey water discharge require many of our larger vessels to be retrofitted with completely new Marine Sanitation Devices (MSD). While we cannot predict these unfunded mandates, we will continue to absorb them in FY08 and beyond and do our best to accomplish the required upgrades using federal funds. With the addition of these new regulations, our work load has increased over the past few years.

Significant Changes in Results to be Delivered in FY2008

No significant changes are anticipated.

Major Component Accomplishments in 2006

Successfully managed the \$5.5 million design and construct contract on the M/V Tustumena Engineering Equipment Overhaul/Refurbish Project. The vessel was re-delivered on March 25, 2006 in Bellingham, Washington. Work included: Renewal of existing ship equipment including new service boat and structure, new radars and global maritime distress and safety systems. Replacement and repairs to windlass, hatches, doors, and winches. Installation of automated tank monitoring equipment. Relocation of generator controls. Upgrade and replacement of vehicle deck ventilation. Habitability improvements, vehicle elevator safety modifications, access ladder replacement and security officer's stateroom installation. Dry-docking for regulatory inspections.

Successfully executed the \$450,000 Fleet Condition Survey project which included updating the fleet survey documents and database to indicate status of recently completed work and define regulatory work required to maintain operational status.

Completed phase 2 of the M/V Taku SOLAS Compliance and Machinery Upgrades which included the design of a new propulsion shaft and hub system. Installation of new Regulatory Automatic Identification System (AIS), Voyage Data Recorder (VDR), and Fixed local Application Fire Extinguishing System. New Security Upgrades, Selected Equipment Renewals/Overhauls, Public Space Upgrades, and Sandblasting of Voids and Tanks as Identified in the 2000 Vessel Condition Survey. Dry-docking for Regulatory Inspections.

Completed phase 2 and executed a phase 4 construction contract for the M/V Malaspina Engine Overhaul and Refurbishment project. Work scope composed of overhaul both main engines and refurbishment of accommodation spaces. It also addresses vessel refurbishment priorities as established in the annual AMHS Fleet Survey Report and visual inspection of vessel.

AMHS has continued to reduce the frequency and severity of terminal casualties and emergency repairs. This is being accomplished through the use of improved, condition-based, planned, and programmed preventive maintenance.

Statutory and Regulatory Authority

AS 19

AS 44

| Contact Information |
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Marine Engineering Component Financial Summary

All dollars shown in thousands

| | FY2006 Actuals | FY2007 Management Plan | FY2008 Governor |
|---|----------------|---------------------------|-----------------|
| Non-Formula Program: | | | |
| Component Expenditures: | | | |
| 71000 Personal Services | 1,533.1 | 2,053.2 | 2,345.8 |
| 72000 Travel | 57.8 | 65.1 | 65.1 |
| 73000 Services | 124.3 | 152.5 | 152.5 |
| 74000 Commodities | 163.2 | 155.2 | 155.2 |
| 75000 Capital Outlay | 0.0 | 0.0 | 0.0 |
| 77000 Grants, Benefits | 0.0 | 0.0 | 0.0 |
| 78000 Miscellaneous | 0.0 | 0.0 | 0.0 |
| Expenditure Totals | 1,878.4 | 2,426.0 | 2,718.6 |
| Funding Sources: | | | |
| 1004 General Fund Receipts | 0.0 | 0.0 | 95.4 |
| 1061 Capital Improvement Project Receipts | 1,122.4 | 1,531.6 | 1,728.6 |
| 1076 Marine Highway System Fund | 756.0 | 894.4 | 894.6 |
| Funding Totals | 1,878.4 | 2,426.0 | 2,718.6 |

Estimated Revenue Collections

| Description | Master Revenue Account | FY2006 Actuals | FY2007 Management Plan | FY2008 Governor |
|--------------------------------------|------------------------------|-------------------|---------------------------|--------------------|
| Unrestricted Revenues | | | | |
| None. | | 0.0 | 0.0 | 0.0 |
| Unrestricted Total | | 0.0 | 0.0 | 0.0 |
| Restricted Revenues | | | | |
| Capital Improvement Project Receipts | 51200 | 1,122.4 | 1,531.6 | 1,728.6 |
| Restricted Total | | 1,122.4 | 1,531.6 | 1,728.6 |
| Total Estimated Revenues | | 1,122.4 | 1,531.6 | 1,728.6 |

**Summary of Component Budget Changes
From FY2007 Management Plan to FY2008 Governor**

All dollars shown in thousands

| | <u>General Funds</u> | <u>Federal Funds</u> | <u>Other Funds</u> | <u>Total Funds</u> |
|--|----------------------|----------------------|--------------------|--------------------|
| FY2007 Management Plan | 0.0 | 0.0 | 2,426.0 | 2,426.0 |
| Adjustments which will continue current level of service: | | | | |
| -FY 08 Health Insurance Increases for Exempt Employees | 0.0 | 0.0 | 0.2 | 0.2 |
| -Fund Source Adjustment for Retirement Systems Increases | 95.4 | 0.0 | -95.4 | 0.0 |
| Proposed budget increases: | | | | |
| -FY 08 Retirement Systems Rate Increases | 0.0 | 0.0 | 292.4 | 292.4 |
| FY2008 Governor | 95.4 | 0.0 | 2,623.2 | 2,718.6 |

Marine Engineering Personal Services Information

| Authorized Positions | | | Personal Services Costs | |
|----------------------|---|----------------------------------|----------------------------------|------------------|
| | <u>FY2007</u> <u>Management</u> <u>Plan</u> | <u>FY2008</u> <u>Governor</u> | | |
| Full-time | 16 | 16 | Annual Salaries | 1,116,228 |
| Part-time | 2 | 2 | Premium Pay | 267,440 |
| Nonpermanent | 0 | 0 | Annual Benefits | 995,931 |
| | | | <i>Less 1.42% Vacancy Factor</i> | (33,799) |
| | | | Lump Sum Premium Pay | 0 |
| Totals | 18 | 18 | Total Personal Services | 2,345,800 |

Position Classification Summary

| Job Class Title | Anchorage | Fairbanks | Juneau | Others | Total |
|-------------------------------|-----------|-----------|----------|-----------|-----------|
| Facilities Manager I | 0 | 0 | 0 | 1 | 1 |
| Maint Gen Journey | 0 | 0 | 1 | 2 | 3 |
| Maint Spec Bfc Jrny II/Lead | 0 | 0 | 1 | 0 | 1 |
| Marine Trans Svcs Mgr | 0 | 0 | 0 | 1 | 1 |
| Naval Architect | 0 | 0 | 1 | 0 | 1 |
| Stock & Parts Svcs Journey II | 0 | 0 | 0 | 2 | 2 |
| Vessel Const Manager I | 0 | 0 | 0 | 3 | 3 |
| Vessel Const Manager II | 0 | 0 | 1 | 2 | 3 |
| Vessel Const Manager III | 0 | 0 | 0 | 2 | 2 |
| Vessel Construction Asst III | 0 | 0 | 0 | 1 | 1 |
| Totals | 0 | 0 | 4 | 14 | 18 |